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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

CAPITAL ASSISTANCE PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

KOREA - AIR NAVIGATION DEVELOPMENT

AID-DLC/P-429

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AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

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AID-DLC/P-429
May 27, 1966

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Korea - Air Navigation Development

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed $4,200,000 to the Republic of Korea to assist in financing the foreign exchange costs of establishing modern civil air navigation aid facilities and related safety equipment in the Republic of Korea and U.S. FAA engineering services in connection therewith if such services are not otherwise funded.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at a meeting on Friday, June 3, 1966.

Rachel C. Rogers
Assistant Secretary
Development Loan Committee

Attachments:
Summary and Recommendations
Project Analysis
Annexes I-IV

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KOREA: AIR NAVIGATION DEVELOPMENT

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KOREA: AIR NAVIGATION DEVELOPMENT

SUMMARY AND RECOMMENDATIONS

1. BORROWER: The Republic of Korea (ROK).

2. IMPLEMENTING AGENCY: The Ministry of Transportation (MOT), acting through the ROK Civil Aviation Bureau (CAB).

3. AMOUNT OF LOAN: $4,200,000

*4. TOTAL COST OF PROJECT: The total cost of this project is estimated at $5,774,163, of which the foreign exchange costs to be covered by this A.I.D. loan will amount to approximately $4,200,000. The local currency costs will amount to ₩425,024,000, equivalent to $1,574,163, and will be provided from the ROKG Budget.

5. PURPOSE OF THE A.I.D. LOAN: To finance the U.S. dollar costs of engineering services and the procurement of material and equipment from the United States to assist in the establishment of modern civil air navigation facilities for the ROK.

6. BACKGROUND: The Korean War destroyed nearly all of the civil aviation facilities in the ROK. After the war, a program of rehabilitation of these facilities was begun. The U.S. has heretofore assisted in this program on a 100 percent grant basis. The ROKG is responsible for all airspace over Korea and the ocean areas bounded by the Taegu Flight Information Region (FIR), and is a member of the International Civil Aviation Organization (ICAO). This project is planned to raise the domestic and international air navigation facilities in the ROK to the level of ICAO standards, thereby providing a safe and efficient air transportation system that is considered essential to further economic development in Korea.

7. PROJECT DESCRIPTION: This proposed project is for the procurement and installation of modern civil air navigation aid facilities at Kimpo International Airport, Seoul, other Korean airports, and along air routes in the ROK. The proposed air navigation aid facilities

* Exchange rate of ₩270:$1 used throughout this paper.

include Airport Surveillance Radar (ASR) and Secondary Surveillance Radar (SSR); Very High Frequency Omni-Directional Range Tactical Air Navigation Facilities (VORTAC); Aeronautical Communications Equipment; Airport Instrument Landing Systems; and Airport Rescue, Fire Fighting, and Heavy Duty Equipment. This project will fill present and anticipated requirements at the sites listed in the loan paper through 1975, providing future technological advances (presently unforeseen) do not require updating the equipment prior to that time.

8. ALTERNATIVE SOURCE OF FINANCING: The Export-Import Bank and IBRD/IDA have indicated that they have no interest in financing projects in Korea at this time.

9. VIEWS OF THE COUNTRY TEAM: The Country Team recommends approval of this loan.

10. STATUTORY CRITERIA: This loan meets all statutory criteria. See ANNEX I.

11. ISSUES: None.

12. SPECIAL PROVISION: The Loan Agreement will require, as a condition precedent to any disbursement, that the Borrower will provide detailed plans, in form and content satisfactory to A.I.D., for the installation, operation and maintenance of the Project. Such plans will cover: recruitment and training of personnel; source and timing of the required local currency; arrangements for engineering, construction procurement, and financing; timely availability of adequate communications facilities; and plans for collecting landing and other fees from non-military users of airports in the Republic of Korea. The Loan Agreement will also provide in a standard covenant that, except as A.I.D. may otherwise agree in writing, the Borrower will implement the project in accordance with such approved plans.

13. RECOMMENDATION: Authorization of a loan to the ROKG in an amount not to exceed $4,200,000.

(a) The loan to be repaid over 40 years, including a 10-year grace period, on the basis of level semi-annual installments of principal and interest during the repayment period.

(b) Interest to be charged at the rate of 1 percent per annum during the grace period and 2½ percent per annum thereafter.

(c) Repayment to be made in U.S. dollars.

USOM Capital Assistance Committee Members:

Loan Officer: Robert S. Burford

Capital Project Advisor: George R. Coumes

Legal Advisor: Edwin J. Clapp

Economic Advisor: Donald E. Demowski

Techinical Advisors: Burton V. Stevens
Donald G. Moss

AID/W Loan Committee:

Loan Officer: David A. Reedy

Capital Projects Advisor: Chester S. Bell, Jr.

Legal Advisor: Kent W. Knowles

AID-DLC/P-429
May 27, 1966

SECTION I. PLACE OF PROJECT IN THE PROGRAM

A. Description of Related Goal

This project is intended to provide necessary equipment for the safty of air traffic, both domestic and international which is required for the further development of the Korean economy. The project is directly related to that aspect of the U.S. economic assistance strategy in Korea pertaining to the expansion of air tranportation facilities. The project will further the A.I.D. goal of improving government organization and administrative capability, and other "self-help" actions by recipient countries.

ANNEX II, Exhibit 9 presents, in summary fashion, available civil air navigational equipment at each major airport in Korea, the equipment to be provided by this loan and the equipment recommended to be available at such airports by the International Civil Aviation Organization (ICAO). An examination of this summary will show that the equipment to be procured hereunder will, in general, bring civil aviation facilities up to ICAO standards, but will not exceed those standards.

Training of ROK Civil Aviation Bureau (CAB) personnel is an important consideration and its successful accomplishment will be essential to the implementation the project. Provision is made for a training program under the supervision of U.S. Federal Aviation Agency/ Civil Aviation Assistance Group (FAA/CAAG), which will involve participation by the ROK National Aviation College. Although CAB personnel are now being trained to operate and maintain radio aids to air navigation, under this project the CAB will be expanded with additional trained personnel.

B. Relation of the Project to Economic Growth

The Special City of Seoul, the Capital of the Republic of Korea, is presently the center of the largest and the most important industrial area in South Korea. This area is being slated for further expansion during the Second Five-Year Plan, to commence in 1967. It is imperative that this area be assured of a safe and dependable airport. The present air navigation facilities at Seoul's Kimpo International Airport are badly in need of modernization and expansion to take care of the ever increasing volume of air traffic. Most of the new equipment to be installed under this loan will be physically placed at Seoul's Kimpo International Airport. The second largest amount of equipment will be installed along enroute airways and at Pusan International Airport. Pusan is the second largest city in the Republic of Korea.

Raising civil air navigation standards to the level of international standards will result in considerable benefit to industries that require a safe and rapid means of transportation. More rapid and improved air transportation service will serve to expedite the normal flow of governmental and commercial business activities.

These are of particular importance to the efficiency of government, and to the ability of manufacturers and exporters to take necessary administrative actions rapidly in order to compete more effectively in international markets. This assistance is very timely because of the export program now underway by the ROK and the increasing number of U.S. investors, international businessmen, and tourists coming to Korea.

Korea is accessable to other countries in the free world only by air or sea. Moreover, as a consequence of mountainous terrain, air is the only practical means of rapid travel and transportation between many points within Korea. For these reasons, Korea's air transportation system will make a greater contribution to overall transportation in relation to other forms of transportation then might be the case in other countries with more favorable geography.

The development of a modern air transport system is one of the major factors in the development of Korea's tourist industry. Modern commerce requires businessmen to move correspondence, personnel and goods swiftly and efficiently. The growth of air transport must be closely related to the burgeoning manufacturing sector, and the growth of exports in a developing country.

C. IBRD Transportation Survey

With regard to the elements in this loan, the IBRD Survey Team, in their "Tentative Investment Plan dated April 1, 1966," stated under Part VII CIVIL AVIATION:

"Airports, most being military fields, must receive the necessary equipment to provide safe civil operations. Some need reinforcements and extensions. International traffic will be handled at Seoul-Kimpo, Pusan, and Cheju.

Table VII-1 provides a breakdown of the investments recommended by the Mission by i) safety investments (most of them are already included in a loan application submitted to A.I.D. in 1965), ii) investments needed to meet the traffic demand (most of them at Kimpo), and iii) investments required for regional development (for developing new trunklines and feeder services in Korea). Table VII-2 provides a list of objectives of the Second Five-Year Plan for the airports concerned. Total investments amount to 5,735 million won (of which 5.2 million dollars). This program is less ambitious than the program originally planned by MOT, which amounted to 7,427 million won."

NOTE: The IBRD study, while it does not recommend any specific pieces of air navigational equipment to be installed in Korea, it recognizes a greater need for air navigational aids and supporting services than are provided for under the proposed A.I.D. loan.

SECTION II. DETAILED DESCRIPTION OF PROJECT

A. Borrower and Implementing Agency

The ROK is the Borrower. Because of the nature of the project, there should be no subloan of the A.I.D. loan proceeds. The same procedure was followed in the recent A.I.D. Feasibility Studies Loan. See Section II, F, for more details regarding this "one-step" loan.

The ROK, by agreement of all member States of the ICAO, has full responsibility for providing services to all aircraft flying within the boundaries of its Flight Information Region, call the Taegu FIR, illustrated in ANNEX II, EXHIBIT 2. The ROKG has further delegated complete adminstration of these responsibilities to the CAB, under the MOT.

The CAB, acting under the authority of the Ministry of Transport (MOT) will be the agency responsible for the execution and implementation of this project. The CAB is an organization within MOT and responsible to MOT for overall aviation matters in the Republic of Korea. An Organization Chart for the A.I.D. Project is included as ANNEX II, EXHIBIT [illegible].

The function of the CAB are: (a) development of aviation policies and programs, (b) economic and technical regulation of air transport industry, (c) general aviation and overall air traffic, and (d) providing necessary maintenance and operation of facilities and planning equipment installation to insure air traffic safety.

The history of the CAB commenced in December 1943, when the Aviation Section was established within the Transportation Bureau, Governor General's Office, Government of Korea. In 1948 the Aviation Section was place under the Engineering Bureau of the Ministry of Tranportation, Government of the Republic of Korea. In October 1961, the Aviation Section was placed under the Bureau of Tourism, Highways, and Aviation. On December 14, 1963, Civil Aviation was raised from Section level to Bureau level by the establishment of the present CAB within MOT.

The CAB presently has a small nucleus of competent personnel. The Director of the CAB was formally a Brigadier General in the ROKAF, followed by a two year assignment as the Korean Air Attache, Washington, D.C. and for the first year of operation of the Korean National Air Carrier (KAL) as operations manager, after which he assumed the position as Director, Civil Aviation Bureau, Ministry of Tanportation. The CAB organizational structure includes the Seoul Regional Aviation Bureau located at Kimpo International Airport, and three Sections, Aeronautical Facilities Section, Flight Operations Section, and Aviation Administrative Section with required

Sub-Section Offices located at Headquarters. The present complement of the CAB is 111 personnel which will be increased by 171 to adequately implement, maintain and operate the expanded and improved airways system under this Loan. Thirty seven of the additional 171 personnel have been recruited and are presently receiving basic training at the CAB National Aviation Colleg (NAC), to be followed, after the approval of the Loan Agreement, by additional personnel to bring the staffing pattern up to the required level of 282, (111 plus 171).

To provide adequate engineering and construction capability under the Loan Agreement a new Aviation Construction Bureau under the CAB is being established. The Aviation Construction Bureau will have three Sections; Airport Construction, Electronic Facilities, and General Administration.

The Loan Application for this project was prepared by the CAB and MOT and requested by the Economic Planning Board (EPB) on behalf of the ROKG. The original was date October 5, 1965. An amendment to the application was made on April 18, 1966.

The Loan Committee considered the possible establishment of the CAB as an Aviation Bureau which would have autonomy either within the MOT or separately. It was decided that it would not be

feasible, at this time, to press for separate autonomy for the CAB. The CAB is a small Bureau, presently under the MOT, and if removed from its jurisdiction, it would lose the influence and bargaining power of the MOT, which is so necessary in dealings with other civilian Agencies and the military. The CAB must be subsidized by the ROKG since their revenues are less than their operating costs, and a review of future revenue possibilities indicates that this condition will continue. An additional statement on CAB's revenues is contained in Section II, F of this paper.

B. Background History of Project

1. ROK Civil Aviation

Prior to the outbreak of the Korean War in 1950, Korea was engaged in a program to establish civil aviation transportation on a sound basis, and open up the country to commercial air service. This program was well under way and slowly progressing by the summer of 1950. However, by the end of the Korean War in 1953, nearly all of the civil aviation facilities had been destroyed and most of the Korean Nationals who had been trained were no longer available to the program.

During and immediately after the war, the various military commands took over all aviation facilities in the ROK. As the years passed, civil aviation facilities were slowly turned over to civilian authorities. At the present time, the CAB is responsible under ROK law for all airspace over Korea and the ocean areas bounded by the Taegu Flight Information Region (FIR).

In March 1965, the MOT became the Chairman of the Korean Airspace Committee (KAC) made up of the following agencies: MOT, 314th Air Division USAF, USFK, ROKA, ROKAF, and UNC. On December 11, 1962, the ROK became a contracting state of the ICAO, and since that date has actively participated in the activities of that international body. This project is a direct result of recommendations made by the KAC and the ICAO.

2. Previous U.S. Assistance

The U.S. Government assisted in the rehabilitation of civil aviation in Korea after the Korean War by providing a group of U.S. FAA technicians called the Civil Aviation Assistance Group (CAAG). During the years 1958 through 1963, the CAAG was staffed with 2 to 6 FAA technicians who made surveys and feasibility studies

and recommended certain radio aids to air navigation, which they felt the Korean Government could maintain and operate on their limited budget. Because of these surveys and studies, A.I.D. later provided approximately $1,291,302 for aviation commodities. The main components of the basic system which A.I.D. provided consisted of the following: One Instrument Landing System (ILS), Seoul/Kimpo International Airport; two Very High Frequency Omni-Directional Radio Ranges (VORs); three Non-Directional Radio Beacons (NDB's); one High Intensity Approach Light System (ALS), Seoul/Kimpo International Airport; two rotating light beacons; one airport lighting system (Pusan Airport runway and taxiways); one Telecommunication Station, Pusan Airport; one Telecommunication Station, Seoul/Kimpo International Airport; various types of test and training equipment, National Aviation College; and limited fire fighting equipment, Seoul/Kimpo International Airport. The CAAG advised and assisted the CAB in the installation and commissioning of this equipment and supporting services. None of the equipment contemplated under this project duplicates the above equipment.

Starting in 1961, the CAAG began to phase out and by August 1964 only 1 FAA employee remained in Korea. At the time, the Korean Air Lines (KAL) began to show good progress and purchased several new aircraft to accommodate increased traffic loads; the CAB began taking over regulatory functions from the USAF; and civil aviation in Korea commenced an unprecedented growth. USOM, in an effort to appraise realistically the present problem areas and future aviation requirements, suggested that new comprehensive aviation surveys be conducted. USOM's contribution to these surveys included 3 short TDY assignments by FAA technicians in the areas of flight check operations and electronic engineering. During 1965, USOM added to the CAAG staff 1 Flight Operations Specialist, 1 Electronics Engineer, and 1 Electronics Technician to assist the Chief of the Group. The Electronics Engineer and the Electroncis Technician are the FAA employees who will provide the necessary engineering services in Korea for the project. For details see Section I.C.3.

3. Current Needs

It is the considered judgment of USOM's FAA/CAAG that the installation of the facilities to be provided under this loan is the minimum required to provide for the safety of air traffic, both domestic and international, which is necessary for the further development of the Korean economy. This is supported by ICAO Annex 10 (part of the Loan Application), which provides standards and recommends procedures which contribute to the safety, regularity,

and efficiency of air navigation throughout the world. The urgent need for safety of flight in the ROK cannot be overstressed. The following reports all reflect the safety aspect: Loy Report to A.I.D. dated July 1964, USOM's FAA Electronic Engineer's Report dated February 26, 1965, the Korean Airspace Committee's (KAC) Report dated March 24, 1965, and the ICAO Report dated April 16, 1965. The series of needs are reflected throughout this paper, particularly in Section II, E, 2.

The ICAO, in its Pacific Region Air Navigation and Communication plans, makes specific recommendations for the area, including the Taegu FIR, and is the basis for the international portion of the ROK's air transport facilities plans and aeronautical fixed and mobile communications plans. Furthermore, there are ICAO standards which must be followed in planning and implementing FIR development to take care of expected increases in air traffic and types of aircraft (supersonic transport), which will be in international use by 1972.

C. Engineering and Technical Analysis

1. Project

This project proposes establishment of the following air navigation aids, communications facilities, and airport ground equipment to allow the ROK to fulfill its responsibilities under the ICAO Regional Plan for the Pacific Region, in the safe operation of air traffic and airports within its Flight Information Region:

(a) Airport Surveillance Radar (ASR) and Secondary Surveillance Radar (SSR) at Kimpo. Immediately upon loan approval, these systems should be ordered to allow systems' delivery to coincide with completion of building construction (to be commenced in second half of 1966). These colocated systems are recognized to be of the utmost importance to safety of aircraft in the Seoul Terminal Area because the air distance from Kimpo to the DMZ is only 15 nautical miles (see additional statement on DMZ in Section II, E, 2).

(b) Very High Frequency Omniranges (VOR) and Tactical Air Navigation Equipment (TACAN) for VORTAC systems (Colocation of VOR and TACAN) at Kangnung, Pohang, Pusan and Cheju, and for VOR at Taejon. (The Pusan VOR is already installed, and will require only the addition of one of the AN/GRC-9 TACANs). Total construction time

for VORTAC sites is expected to be longer than for buildings in the Kimpo area because of the remote location of most of the VOR sites from centers of materials and labor force. This factor, coincident with the desire to avoid spreading out the Korean electronic technicians over too many installation projects, requires that the VORTAC projects follow the more urgent radar facilities listed in (a) above.

(c) VOR Monitor Link Equipment at Cheju and Pohang.

(d) Instrument Landing Systems (ILS) and Approach Light Systems (ALS) at Kangnung, Pusan and Cheju airports.

(e) Selective Call Communications Equipment (SELCAL) for Kimpo.

(f) Runway and Taxiway lights at Kangnung Airport. Partial paving of the runway will commence in 1966, and the complete paving of runway, taxiway, and apron area will be completed at the latest by end of the 1967 construction season.

(g) Rotating beacons and wind-tees for Cheju, Kangnung and Pusan airports.

(h) Airport Lighting System (runway and taxiway lights) for extension of Kimpo runway and taxiway systems.

(i) Visual Approach Slope Indicator (VASI) and Taxiway Guidance systems for Kimpo and Pusan airports.

(j) Improvement of Aeronautical Radio and Land Line Communication Equipment and Power at Kimpo, Cheju, Kangnung, Kwangju, Pusan and Samchok airports.

(k) Improvement of Radio Teletypewriter and Land Line Teletypewriter Terminal Communication Equipment (international and domestic) at Kimpo, Pusan, and Cheju.

(l) Vehicle and machinery at various locations listed below. This equipment may be put to immediate use as soon as delivery is made, and should therefore be ordered as soon in the program as possible: 4 Rescue Vehicles, 1 each at Kimpo, Cheju, Kangnung, and Pusan; 4 Ambulances, 1 each at Kimpo, Cheju, Pusan, and

Kangnung; 2 AD/C Crash and Fire Trucks at Kimpo; 2 Snow Plows, 1 each at Kimpo and Kangnung; 3 Sweepers, 1 each at Cheju, Pusan, and Kimpo; and 5 Electronics Facility Maintenance Trucks, 1 each at Cheju, Kangnung, Pohang, Taejon, and Pusan.

In developing criteria for determining the need for establishing civil air navigation facilities in the ROK, and their locations, the following was taken into consideration: (a) Modern and more reliable air traffic control systems at main terminal points, and along Korean airway route structures; (b) Instrument landing systems and airport lighting at terminal areas not presently served with these essential aids, also providing for full emergency landing capability at selected points of airway entry and exit (for example, the mountainous northeast sector and the southern overwater sector, two extensive air-space areas not now centrally served with full emergency landing facilities); (c) Insuring maximum air control safety for both the present and developing touristic and industrial areas; (d) Communications facilities to support the improved and expanded terminal and airway facilities; and (e) Vehicular equipment in support of system sites and airports. The items that are here recommended for funding are the most appropriate mix within a given time frame and this is borne out by the conclusions of the IBRD Transportation Team Tentative Investment Plan, and the recommendations by the ICAO.

The increase in CAB personnel levels (by the 171 positions shown in the Loan Application) and extensive engineering back-up by FAA/Washington (which is provided as a systems procurement channel) are considered essential to the implementation of the loan project in approximate conformance with the estimated time schedules and budget estimates.

Prior to equipment delivery and installation, the CAB will increase its staff and train its personnel in the required skills. At the same time this scheduling must take into account the intrinsic differences in urgency of facility commissioning, and the equipment delivery dates which may be obtained by FAA and OSROK. A detailed chart of estimated project schedules showing dates of implementation stages is shown as ANNEX II, EXHIBIT 3.

In the course of the intensive review (in country) of the original Development Loan Application, prior to this technical analysis, coordinated study by MOT, USOM/K, FAA and the interested military users of aviation facilities in the Taegu FIR

resulted in an amendment to the loan application. The equipment and system considered herein are in accordance with the amended loan application, and this analysis is based upon the amended loan facilities list.

2. Equipment Plan/International Standards

Korea does not manufacture the highly technical equipment called for in the Project. In the absence of an A.I.D. Loan, the CAB would seek other equipment. This would probably result in its procuring substandard equipment over a longer period of time and, probably, there would be unsatisfactory mesh of the equipment provided. The present ICAO standards represent U.S. developed systems and air traffic control concepts, in which the U.S. Federal Government has an investment of many hundreds of millions of dollars. These standards and types of equipment were adopted internationally only after long and difficult negotiations in the U.N., and in the face of strong opposition from competing systems developed in other countries. It is therefore in the direct interest of the U.S. to foster the continued international use of these U.S. manufactured standard systems, to thus protect the investment of time, money, and engineering which has already taken place.

3. Engineering Plans

Technical and supervisory engineering services for this project will be provided by the Federal Aviation Agency pursuant to a separate PIO/T between USOM/K and the ROKG. Specific provisions covering the services to be rendered by FAA will be detailed in a separate PASA between AID and FAA, which will have the prior concurrance of the ROKG CAB. Under the PIO/T the FAA will be directly responsible to the Borrower for the design and factory inspection of the U.S. manufactured equipment including its installation in Korea. The FAA will provide technical direction and assistance for all equipment installation and, to the extent that FAA's technicians themselves are not performing work and services for the project, (qualified Korean engineers and contractors are available for site preparation and construction), the FAA will provide the customary supervisory engineering services for the work being done by the CAB or its contractors. A draft Scope of Work and Services to be performed by the FAA has been prepared and is inculded as Annex II, Exhibit 10. In order to maintain Borrower responsibility for implementation of the project, the Scope includes a clear recognition that FAA personnel providing services for this loan project are responsible to the Borrower, and will not be agents of USOM.

The requested loan amount (amended Loan Application) is $4,200,000. This includes equipment and shipping costs, approximately 5½ percent for contingencies, and a separate amount for U.S. training of Korean CAB technicians. The latter item is considered essential to the Project, since the type of training otherwise available for such technicians would critically handicap program implementation and systems thereafter. See ANNEX II, EXHIBIT 4 for cost breakdown.

It is intended that the cost of the two FAA Project Technicians, estimated at US$300,000, and included in the US$4,200,000 loan will be TC funded. However, FY66 TC funds and Agency policy regarding reservation of future TC funds will not permit obligation of all funds required for the FAA engineering services, other than from loan funds. Hence, even though A.I.D. intends to fund FAA project engineering costs from TC funds, to the extent that they become available, sufficient funds have been inculded in the loan to finance the FAA services necessary to complete the project, in the event that TC funding becomes unavailable. Therefore, each fiscal year, it is USOM's intention to obligate TC funds, year by year, and correspondingly deobligate like amounts from the loan.

TC funding of the FAA engineering services for the project is also preferred over DL funding because of the dual role that the FAA/CAAG technicians play in providing day to day technical supervision and guidance to the Korean Civil Aviation Bureau and in providing engineering and procurement services for the loan project. The interrelationship of these responsibilities is such that any one member of the FAA/CAAG group will have to deal, concurrently, with current operational, maintenance, regulatory and administrative problems connected with the present system, and assist in training personnel and supervising the installation of equipment for the expanded and improved system being provided under the proposed DL. For the first 12 to 18 months of project implementation, the ROK CAB, under the general supervision of the FAA will be conducting project connected training of new employees (171) to bring the staffing pattern up to full strength and to provide a fully operational Aviation Construction Bureau. In addition, there will be training of maintenance and operational personnel required for the successful operation of the improved and expanded air navigation system. Also, during this same period, CAAG advisors will, with their Korean counterparts, be training personnel at the National Aviation College (NAC) and on the job in conjunction with their current duties advising on day to day operational, maintenance and regulatory functions.

If one or two additional U.S. FAA technical advisors were added to the present FAA/CAAG complement, (i.e. if the complement were to go from 4 to 6) within 18 months two U.S. technicians could be assigned full time to DL project implementation. Under such an arrangement the services of those technicians would be more properly funded under the DL. However, we do not expect the duties of the FAA/CAAG, including those anticipated for this project, to require the additional technicians.

The FAA in Washington reviewed a copy of the original Loan Application and made their comments in a Letter to AID/W dated January 20, 1966. In addition to FAA's concurrence with the need for the facilities set forth in the Application and their general agreement with equipment cost estimates, they listed engineering assumptions required for cost analysis. Most important of these, with respect to all the equipment cost estimates, is "all costs were based on the procurement of an economic quantity."

It is considered desirable and necessary that the procurement responsibilities under this loan be divided between OSROK and FAA to best serve economic and timely project implementation. It will be suggested to the ROKG that procurement responsibilities be in accordance with the following dividing line: Where OSROK lacks the necessary technical and engineering services in a required area (factory inspection of electronic systems of high complexity; ability to obtain much lower system costs by "add-on" to an existing contract, etc.) and FAA is able to provide the necessary service, FAA should procure. Where FAA offers approximately the same work as may be provided by OSROK, the latter should be chosen because of their lower administrative costs and the fact that they are the Government Procurement Agent for all procurement which they are qualified to handle. ANNEX II, EXHIBIT 4 is the recommended division of procurement responsibilities. In preliminary discussions with ROKG officials concerned, full agreement was reached on these arrangements for engineering, procurement, and construction.

The FAA has gained, through years of experience as the sole procurement agent for the U.S. Government for aeronautical and related equipment, a high degree of competency in the procurement of air navigational aids and telecommunications equipment. The FAA can provide the precise specifications required to meet the needs of the end user. In addition, the full advantage of bulk purchase prices and more flexible scheduling of deliveries of commodities will be gained by the ROKG through the uniques ability of the FAA to include A.I.D. procurement items under existing FAA contracts.

Other advantages to be gained through FAA procurement are factory inspection and systems engineering. FAA engineers assigned to the project within the host country to accomplish preliminary engineering, determine technical requirements, furnish standard plans, specifications and detailed requirements for site construction and buildings, working in close coordination with FAA Washington as the procuring agent for commodities, provides a single channel within one agency having a thorough knowledge and an established working relationship with U.S. suppliers of

radio aids to air navigation and telecommunication systems.

Detailed requirements and procedures governing FAA procurement in A.I.D. Development Loan projects are contained in Appendix IV to the General Agreement between the Agency for International Development and the FAA and in M.O. 1432.5 to assure compliance with AID statutory and policy requirements in the best interests of AID and the ROKG, including competitive procurement. The anticipated PIO/C will provide that the AID financed procurements will be carried out in accordance with the General Agreement and M.O. 1432.5.

4. Technical Feasibility

The technical feasibility of loan project implementation involves four factors: (a) Timing of the various projects; (b) availability for personnel and material to undertake the tasks; (c) availability of local funds; and (d) ROKG intrabureau coordinative action to assure timely land acquisition and building construction, and to provide in-country training of technicians, where required.

(a) Project timing is essentially a result of the realistic evaluation of the other three factors.

(b) The CAB staff increase programmed for specific implementation of this loan is considered both adequate and essential. Training of technicians at the equipment manufacturers' plants, however, is not considered an effective means of giving these technicians the required skills in their jobs. A concentrated course of study in both the equipment components and in proper maintenance procedures, techniques and schedules is deemed required for these technicians. The Training in the specific equipment being procured is offered only at the U.S. FAA Aeronautical Center in Oklahoma City, Oklahoma.

An amount has been established in ANNEX II, EXHIBIT 4 to cover the costs of training of Korean CAB technicians for implementation of this loan and for maintenance of the systems thereafter. This amount will provide for the training of fifteen technicians for equipment maintenance (training of air traffic controllers and equipment operators has already been provided for through direct grant PIO/Ps). Phasing of participant training in the various equipment specialties should follow the timing shown below, to take advantage of their newly acquired skills as nearly in coincidence with equipment deliveries as is possible.

Training Schedule

Fiscal Year	Number of Trainees	Equipment Instruction	Course Length
1967	3	VORTAC	6 months
	3	ASR and SSR	6 months
1968	3	VORTAC	6 months
	3	ILS and VOR	4 months
1969	2	Comm and TTY	4 months
	1	Power, Air-Cond. & VASI	2 months

Private construction contractors of proven capability and adequate construction materials are available within the country for timely construction of all roads, buildings and equipment sites. The CAB, under the supervision of the FAA, will be responsible for planning, contracting and supervision of construction of all sites. The Aviation

Construction Bureau planned staffing is considered sufficient to this task.

(c) In accordance with present construction costs and anticipated normal gradual increase in these rates within the planned construction period, the amount of local currency to be expended is considered a reasonable and factual estimate.

(d) Thorough coordination of all aspects of this project has already been effected between the MOT and the other concerned ROKG Ministries and Agencies, military and civilian alike. It was decided during this coordination that the Ministry of Communications (MOC) will provide the necessary point-to-point Telecommunications circuits, meeting ICAO standards, for this Project. It is expected that this initial coordination will facilitate a smooth and realistically scheduled completion of all the project phases.

5. Cost Estimates

The U.S. dollar cost estimates for equipment systems and machinery were based upon June, 1965 prices obtained by FAA in their procurement, and upon direct quotes from the manufacturers of machinery (such as fire-fighting equipment). These estimates, as contained in the loan application, have been reviewed by FAA/W as well as by the USOM FAA/CAAG. Possible price increases are considered adequately covered by the included $5\frac{1}{2}$ percent for contingencies. Accordingly, the Loan Committee is of the opinion that there is a reasonably firm estimate of the costs of the project. All systems and machinery costs are shown in ANNEX II, EXHIBIT 4 according to facility type.

D. Military Coordination

Although the ROK CAB is responsible under ROK law for all airspace over Korea and the ocean areas bounded by the Taegu Flight Information Region, a large amount of all flying is presently military and a continuing high degree of coordination and cooperation is required between civil and military agencies using Korean airspace. Therefore, USOM supplied both the U.S. and ROK military authorities with copies of the Loan Application which they thoroughly reviewed. Comments received from the military were fully dealt with during the

intensive review of the application. All necessary coordination was achieved between the facilities to be financed under this loan and those programmed or planned by the ROK from their own resources, and from the U.S. Armed Forces through DOD appropriations of MAP funds.

The following commands and subordinate commands were involved in this coordination with USOM:

314th USAF Air Division	EUSA Aviation
6146th USAF Advisory Group	KMAG
U.S. Navy Advisory Group	U.S. Air Attache
ROKG MND	USFK Signal
ROKG MOC	EUSA
ROKAF	UNC
ROKA	PROVMAAG/K

E. Economic Analysis

The economic basis for evaluating the project is the relative importance of air transport in the further development of the Korean economy compared with other forms of transportation. A thorough economic appraisal of the expansion of Korea's air transport facilities is contained in the Korean Government's White Paper on Aviation, published in May 1965 by the Ministry of Transportation (Copy Forwarded to FE/EA/CPD, AID/W). The following summary analysis is based largely on a critical review of the Government's report.

1. Demand for Civil Air Transportation

Civil air transporation in Korea is in its infancy. While the ROK has made attempts to have regular international air routes linking Korea with Japan and Hong Kong since 1949, it was not until 1965 that KAL commenced a regular schedule of flights to Japan. At the present time, KAL, which started in 1962, is Korea's only international carrier.

The existence of a prolonged military situation and sustained adverse economic conditions in Korea has hampered the growth of Korea's international civil air transportation network. The

growth of domestic civil air transport service has shown a similar pattern of slow growth for basically the same reasons of a tense military situation and unstable economic conditions over much of the past 15 years. However, during recent years, the picture changed and civil aviation in Korea is growing at a healthy rate. Summary data on international and domestic air transport service from 1963 to 1965 are presented in the following table.

Air Transportation in Korea, 1963-1965 1/

Item	Unit	International			Domestic		
		1963	1964	1965	1963	1964	1965
Number of Flights	Each	912	1,448	1,881	5,275	9,508	10,491
Number of Passengers	Persons	48,813	60,692	77,492	94,036	174,925	207,699
	Kilometers				28.2 mil	53.6 mil	63.3 mil
Rate of Seat Occupancy	%	59.6	49.4	54.2	58.9	60.4	62.3

1/ This breakdown does not include 540 MATS flights into Kimpo/Seoul in 1965, nor the military chartered flights of U.S. air carriers that rotated approximately 12,000 troops per month into Kimpo/Seoul during 1965, which involved an additional 1750 to 2200 flights in 1965.

Because of the relatively short period covered by past data, the past trends of air transport service do not represent a reliable basis on which to project future demand. More accurate and meaningful indications can be derived by analyzing the growth trends in other countries and by exploring the potential in Korea for growth in closely related industries such as tourism and overland transport.

The situation as regards growth trends in other countries is graphically illustrated in a chart (ANNEX II, EXHIBIT 5) which shows an overall tripling in total worldwide civil air transportation usage between 1953-1963. The chart indicates that the most rapid growth since 1960 has been occurring in the Far East region. A chart showing the trend of growth for Korea, based on the best available information, is shown as ANNEX II, EXHIBIT 6.

An exhaustive analysis of the prospects for expansion of Korea's tourism industry is contained in a report being completed by an A.I.D. - sponsored tourism advisor, which will be available in July 1966. It is noteworthy that the report recommends a "fast and sizable increase in KAL equipment, routings and frequency, plus additional other airline service." The report emphasizes the incresing flow of world businessmen into the burgeoning Asian market and repeatedly stresses Korea's opportunities to attract a larger share of international tourist traffic. On the domestic scene, the report points out that the mountainous nature of Korea's terrain and the slowness of overland travel due to rough roads make it almost imperative to rapidly develop domestic air transport capability as the most efficient means of accommodating increased tourist flow.

2. Geographic Considerations

The Republic of Korea is located on the southern half of the Korean peninsula. Korea's only land boundary consists of the DMZ which separates the Republic from a hostile government in the northern half of the peninsula. There could be serious consequences if free world aircraft, through failure of adequate air safety equipment, penetrated the DMZ while approaching or departing Seoul's Kimpo International Airport. The air distance from Kimpo to the DMZ is only 15 nautical miles, and landing speeds of modern jet aircraft are approximately 190 miles per hour. The security and political considerations require the highest degree of safety possible for flights in the proximity of the DMZ.

As noted earlier, much of Korea is mountainous. A road network covers most of the country, but the roads are generally gravel surfaced. Future improvements and new roads will continue to be relatively expensive because of the peculiarities of the Korean terrain. Displacement of arable land through increase in new road milage is more serious in Korea than in most other countries, Railway service is adequate for present usage but railway facilities would need considerable additional investment in order to meet increased traffic flows. Air tansportation is Korea's primary link for external travel, having accounted for 87 percent of total overseas travel between 1957 and 1964; air transportation is the quickest and most efficient means of domestic travel. As an added note on the domestic side, it is pointed out that the two

fastest growing industrial areas in Korea, the Seoul-Inchon and Pusan-Ulsan areas, are at opposite ends of the country. The former is located in northwest Korea near the demilitarized zone while the latter is situated on the coastline in southeast Korea.

3. Government Policy

The importance of the development of modern civil air transportation facilities to economic growth is reflected in the Government's policy for civil air transport expansion. Recognizing the potentially lucrative benefits to be derived from increased international business contacts and expanded tourism, the Government has made it a matter of policy to encourage major international airlines to stop at Kimpo Airport near Seoul, the capital city. The Government has indicated its willingness to continue to support the development of modern air transportation services through government investment and subsidies where appropriate.

The ROKG Second Five-Year Plan, which will cover the period 1967 through 1971, includes the proposed expansion of civil aviation facilities as a high priority project.

4. Air Navigation Facilities

There is an obvious connection between the demonstrated need for expanded civil air transportation facilities and the need for civil air navigation facilities. For reasons of economy and safety, adequate navigational aids are a vital element in the development of a modern efficient air transport system. One mishap involving a jet carrier of the type that fly into Seoul daily can exceed the cost of installing the latest air navigation system throughout Korea as proposed in this project. The best guide for what is needed in the way of navigation facilities for Korea are the standards established by the ICAO, of which Korea is a member state. In fact, as has been pointed out elsewhere, this project has been designed under the guidance of U.S. aviation technicians in order to ensure that Korea's civil air transport system measures up to ICAO standards for international air travel.

An engineering cost analysis of the project has been conducted by USOM sponsored FAA aviation engineers and technicians, with the backup support of the U.S. Federal Aviation Agency, Washington, D. C. On the basis of this engineering analysis, installation schedules have been assigned to the various project components in accordance with the requirements of sound system development.

5. Conclusion Regarding Economic Aspects

The Loan Committee supports the view of the Government that civil air navigation aids are necessary for the growth of civil aviation. Growth of civil aviation is essential to the growth of Korean commerce and industry. The Committee is of the opinion that these facilities, while not luxurious, should be adequate to supply traffic growth for a considerable period of time with minor additions or modifications, thus avoiding the dangers of: (a) lacking equipment when needed, or (b) obtaining mismatchedcequipment.

The Loan Committee finds the Project to be economically sound. In reaching this conclsuion, it judged the size of the investment to be made to be appropriate to the priority needs of Korea. The engineering costs are believed to be reasonable. The normal cost-benefit analysis is not applicable to this type of project.

F. Financial Analysis

1. Financial Plan

The total cost of this project is estimated at $5,774,163. The foreign exchange costs will amount to $4,200,000 and local currency costs will amount to ₩425,024,000. A summary of the capital requirements is shown as ANNEX II, EXHIBIT 4. The A.I.D. loan will be the source of foreign exchange financing while the ROKG Economic Development Special Account will be the source of local currency financing. After the project is completed, necessary maintenance and operating costs will be financed from the ROKG General Account through annual budget appropriations.

The $4,200,000 A.I.D. Loan will cover the costs of imported U.S. materials and equipment and the cost of necessary specialized U.S. training for Koreans. As earlier explained, the cost of the FAA engineering services required to complete the project will be TC funded, and as such funds are obligated, a corresponding amount of the loan funds will be deobligated. The A.I.D. Loan

funds will be loaned to the ROKG with repayment over 40 years from the date of the first disbursement, including a 10-year grace period, in level semi-annual installments of principal and interest. Interest will be 1 percent during the grace period and $2\frac{1}{2}$ percent thereafter. This will be a "one-step" loan (U.S. to ROKG) with no subloan of the proceeds.

The Loan Committee investigated the possibilities that there may be related revenue-producing activities of the MOT and CAB that possess the capability or potential to service a subloan for this project. The Committee found that such activities would not generate enough revenue to service the loan. The Korean Air Lines (KAL) is a separate Government corporation. The CAB, which will be responsible for implementation of this project, has revenues from such sources as: airport landing fees, communications services, airport office rental, etc.; however, total CAB revenues have been consistently less than total CAB operating costs. At the present time, approximately one-half of all CAB revenues are derived from international airlines for airport landing fees, already among the highest in the world. The Loan Committee noted that the CAB does not collect landing fees from domestic airlines or from any military flights. The first Implementation Letter will provide that as a part of the ROKG's detailed plans for implementation of the Project, USOM will be furnished a description of the plans and steps taken to require KAL and other non-military users to pay proper charges and fees for services rendered. Furthermore, the ROKG will be required to covenant that such plans as have been accepted by A.I.D. (the USOM) will be carried out by the ROKG. However, it recognized by the Loan Committee that landing fees, although a small measure of self help, are in no way intended to financially support air navigational services. It is the general practice throughout the world to use the landing fees to pay for the maintenance of runways, taxiways and certain aircraft handling equipment. There is no intention to imply that the landing fees will, in any way serve to meet amortization requirements.

Since the Project will not produce debt-servicing revenue to amortize the loan, the ROKG will repay the loan by transferring local currency from the ROKG General Account to the Bank of Korea to retire the U.S. dollar debts when due. ANNEX II, EXHIBIT 7 is the proposed amortization table.

2. ROK Debt-Service Requirements

As of April 1966, foreign loans which had been approved by the ROKG and for which loan agreements had been signed or letters of guarantee had been isssued or were pending, amounted to $472.7 million. Of this amount, $238.7 million are long-term government loans and $234.0 million represent long-term commercial loans (including $198.0 million backed by government repayment guarantees).

The United States is the source of 53 percent of the total foreign loans thus far approved by the ROKG, accounting for 80 percent of government loans and 26 percent of commercial loans. West Germany and Japan are next two major sources, each accounting for about 15 percent of the total. Funds amounting to $137.0 million, or approximately 29 percent of the $472.7 million total approved loans, had arrived as imports through December 1965.

The terms for government loans from the United States include a 40-year repayment period, with 10 years' grace and interest of 3/4-1 percent during grace and 2-3½ percent thereafter. Government loans from other sources carry terms of 20 years' repayment period including 5-6 years' grace and interest of 3-3½ percent. The commercial loans are generally medium term with a 10 percent down payment, 8-10 year repayment period, including 2-3 years' grace and interest of 5 3/4-6 percent.

The debt-service on the total amount of approved loans, as estimated by the Economic Planning Board of the ROKG, ranges from $8.2 million in 1965 to $40.8 million in 1970. Commercial loans, which represent slightly less than one half of total foreign loans approved as of April 1966, will account for almost 90 percent of the debt-service requirements during the five-year period, 1966-1970, according to the Economic Planning Board's estimation.

In addition to the $472.7 million of loans already approved, another $389.5 million represents loans presently under review by the ROKG, including $192.1 million of government loans and $197.4 million of commercial. The Economic Planning Board estimates additional debt-service requirements resulting from these loans ranging from $0.1 million in 1965 to $32.3 million in 1970, assuming that commitments are obtained and funds arrive within the next two to three years. A summary of the debt-serviceson Korea's foreign loans based on the assumptions stated above is contained in ANNEX II, EXHIBIT 8. Under the terms of the Korea-Japan Normalization Agreement, $200 million in government loans and $300 million in commercial will be made available to Korea over the 10-year period 1967-1976. Except for $125.1 million already taken into account above under the category "Commercial Loans Under Review," the debt-service effects of loans from this additional source have not been calculated.

The joint ROKG-U.S. Stabilization Agreement imposes a limit on the debt-service connected with foreign commercial loans of 9 percent of total expected KFX earnings. The following table shows the percentage ratios of debt-service to expected KFX earnings for the period 1965-1970 on the basis of data provided by the Economic Planning Board:

(In Millions of Dollars)

	1965	1966	1967	1968	1969	1970
Estimated KFX earnings a/	289.8	354.6 b/	419.3	483.6	548.5	614.9
Debt-service on approved commercial loans a/	6.6	13.3	24.4	25.6	28.5	36.3
Percentage ratios	2.3%	3.8%	5.8%	5.3%	5.2%	5.9%
Debt-service including commercial loans under review a/	6.6	13.6	25.7	35.8	54.8	65.6
Percentage ratios	2.3%	3.8%	6.1%	8.2%	10.0%	10.7%

a/ As estimated by the EPB. Includes goods and services.

b/ One-half of difference between estimates for 1965 and 1967.

It can be seen from the above table that the debt-service on commercial loans already approved falls well within the limit of 9 percent. However, under the assumption that all commercial loans presently under review are to be approved over the next 2-3 years, the debt-service would approach the 9 percent limit by 1968 and would exceed it in 1969 and 1970. Thus, whether or not the limit is exceeded will depend upon the rate at which loans presently under review are committed. In this connection it should be noted that the above table takes account of the debt-service on $125.1 million of Japanese commercial loans to be signed under the Korea-Japan Normalization Agreement. It has been anticipated that funds from this source would arrive in the amount of $30 million each year over the decade beginning in 1967. The above table does not take into account the possibility of additional loans from other commercial sources beyond those loans already attributed to these sources and presently under review.

In view of Korea's present debt-servicing situation and the prospects for increased earnings, it is reasonable to conclude that the loan will be repaid on the terms stipulated in this paper.

3. Alternate Sources of Financing

The Export-Import Bank and IBRD/IDA have advised A.I.D. that they are not interested in financing this project. No other public or private free-world source has indicated an interest in financing the foreign exchange cost portion of projects in Korea at this time.

SECTION III. EFFECT ON U.S. ECONOMY

A. Competition with U.S. Enterprise

This project, by its nature, does not involve competition with any U.S. private enterprise.

B. Source/Origin of Procurement of Goods and Services

To be eligible for financing under this loan, all goods and services must have their source and origin in the United States. Excess property, if it is available and if it meets standards and specifications, will be used to the maximum extent possible.

C. Effect on Private Enterprise

Imported materials and equipment for this project, as well as factory engineering services, are to be procured in the United States from private sources. Thus, all of the U.S. dollar costs of this project will directly benefit U.S. private enterprise.

Except for work carried out by CAB personnel, construction work on the project will be awarded to competent local private contractors following the receipt of open and competitive bids. Also, Korean made construction materials will be procured locally from private sources. However, most of the local engineering will be performed by engineers on the staff of the CAB.

The improved air facilities will act as a spur to the expansion of Korea's tourist industry, which is potentially a source of sizable foreign exchange earnings. The improvements will also serve to expedite the flow of international and domestic commercial business activities. Therefore, private enterprise in Korea as well as U.S. and other countries will greatly benefit from the proposed project

SECTION IV. ISSUES

None.

SECTION V. VIEWS OF COUNTRY TEAM

The country team finds this project to be desirable and consistent with U.S. objectives in Korea.

SECTION VI. SPECIAL PROVISION

The Loan Agreement will require, as a condition precedent to any disbursement, that the Borrower will provide detailed plans, in form and content satisfactory to A.I.D., for the installation, operation and maintenance of the project. Such plans will cover: recruitment and training of personnel; source and timing of the required local currency; arrangements for engineering, construction and procurement; timely availability of adequate communications facilities; and plans for collecting landing and other fees from non-military users of airports in the Republic of Korea. The Loan Agreement will also provide in a standard covenant that, except as A.I.D. may otherwise agree in writing, the Borrower will implement the project in accordance with such approved plans.

AID-DLC/P-429
ANNEX I
May 27, 1966

STATUTORY CHECKLIST
(Development Loan Fund)

(Provide statements under each item, including references to places in the Paper, or other clearly identified and readily available documents, where they are supported.)

1. FA Sec. 102. Precautions that have been or are being taken to assure loan proceeds are not diverted to short-term emergency purposes (such as budgetary, balance of payments, or military purposes) or any other purpose not essential to the country's long-range economic development.

   Loan Agreement will limit use of funds to project.

2. FA Sec. 102. Information whether the country permits, or fails to take adequate measures to prevent, the damage or destruction by mob action of U.S. property.

   Criterion met. No information of such mob action in Korea.

3. FA Sec. 102. Measures taken to utilize U.S. Government excess personal property in lieu of procurement of new items.

   Section III, B. Loan Agreement will include standard clause covering excess property.

4. FA Sec. 201 (b). Manner in which loan will promote country's economic development, emphasizing help for long-range plans and programs designed to develop economic resources and increase productive capacities.

   Section I, A and B, Section II, C and E.

5. FA Sec. 201 (b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.

   Neither Ex-Im Bank nor IBRD/IDA are interested in financing this project.

The following abbreviations are used:
FA - Foreign Assistance Act of 1961, as amended by the Foreign Assistance Act of 1965.

App. - Foreign Assistance and Related Agencies Appropriation Act, 1966.

6. FA Sec. 201 (b)(2). Information and conclusion on activity's economic and technical soundness, including the capacity of the recipient country to repay the loan at a reasonable rate of interest.

   Section II, C, E, and F, and ANNEX II, EXHIBIT 8.

7. FA Sec. 201 (b)(3). Information and conclusion on existence of reasonable promise activity will contribute to development of economic resources or increase of productive capacities.

   Section II, C and E.

8. FA Sec. 201 (b)(4). Information and conclusion on activity's relationship to other development activities, and its contribution to realizable long-range objectives.

   Section I, A and B.

9. FA Sec. 201 (b)(5). Country's self-help measures, including institution of Foreign Assistance Act investment guaranty programs.

   The ROKG will undertake part of the financing of this project and train additional personnel to operate the new equipment (Section II, C and F). The ROKG has instituted FAA Investment Guaranty programs.

10. FA Sec. 201 (b)(6). Information and conclusion on possible effects on U.S. economy, with special reference to areas of substantial labor surplus.

    Section III, C.

11. FA Sec. 201 (b). Information and conclusion on reasonable prospects of repayment.

    Section II, F, and ANNEX II, EXHIBIT 8.

12. FA Sec. 201 (d). Information and conclusion on legality (under laws of the country and the U.S.) and reasonableness of lending and relending terms.

    Lending terms meet legal requirements of U.S. and ROK laws, and are applicable to loans of this type.

13. FA Sec. 201 (e). Information and conclusion on availability of an application together with sufficient information and and assurances to indicate reasonably that funds will be used in an economically and technically sound manner.

Section II, A, C, and E.

14. FA Sec. 201 (f). If a project, information and conclusion whether it will promote the economic development of the requesting country, taking into account the country's human and material resource requirements and the relationship between the ultimate objectives of the project and the country's overall economic development.

Section I, B and Section II, E.

15. FA Sec. 201 (f). If a project, information and conclusion whether it specifically provides for appropriate participation by private tnerprise.

Section III, C.

16. FA Sec. 202 (a). Total amounts of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.

Approximately ninety-nine percent (99%) of the loan will be go to private enterprise to finance equipment and services of U.S. origin (Section II, C, and ANNEX II, EXHIBIT 4).

17. FA Sec. 601. Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private iniative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; (f) strengthen free labor unions.

(a), (b), and (e): Section I, B, and Section II, E.
(c), (d), and (f): Not applicable.

18. FA Sec. 601 (d). Conclusion and supporting information on compliance with the Congressional policy that engineering and professional services of U.S. firms and their affiliates are to be used in connection with capital projects to the maximum extent consistent with the national interest.

Section II, C, and Section III, C.

19. FA Sec. 601, 602. Information and conclusions whether loan will (a) encourage U.S. private trade and investment abroad; (b) encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise), and (c) permit American small business to participate equitably in the furnishing of goods and services financed by it.

Section II, C, and Section III, A, B, and C.

20. FA Sec. 604 (a); App. Sec. 108. Compliance with restriction of commodity procurement to U.S. except as otherwise determined by the President and subject to statutory reporting requirements.

Section III, B. Loan Agreement will so provide.

21. FA Sec. 604 (b). Compliance with bulk commodity procurement restriction to prices no higher than the market price prevailing in the U.S. at time of purchase.

Section II, C. Loan Agreement will so provide.

22. FA Sec. 604 (d). Compliance with requirement that marine insurance be purchased on commodities if the participating country discriminates, and that such insurance be placed in the U.S.

Loan Agreement will so provide.

23. FA Sec. 611 (a)(1). Information and conclusion on availability of engineering, financial, and other plans necessary to carry out the assistance and of a reasonably firm estimate of the cost of the assistance to the United States.

Section II, C.

24. FA Sec. 611 (a)(2). Necessary legislative action required within recipient country and basis for reasonable anticipation such action will be completed in time to permit orderly accomplishment of purposes of loan.

Legislative action, if required, will provided for under conditions precedent to disbursements in Loan Agreement.

25. FA Sec. 611 (b); App. Sec. 101. If water or water related land resource construction project or program, information and conclusion on benefit-cost computation.

Not applicable.

26. FA Sec. 611 (c). Compliance with requirement that contracts for construction be made on competitive basis to maximum extent practicable.

Will be provided in Loan Agreement.

27. FA Sec. 619. Compliance with requirement that assistance to newly independent countries be furnished through multilateral organizations or plans to maximum extent appropriate.

Not applicable.

28. FA Sec. 620 (a); App. Sec. 107 (a). Compliance with prohibitions against assistance to Cuba and any country (a) which furnishes assistance to Cuba or fails to take appropriate steps by February 14, 1964 to prevent ships or aircraft under its registry from carrying equipment, materials, or supplies from or to Cuba; or (b) which sells, furnishes or permits any ships under its registry from carrying items of primary strategic significance, or items of economic assistance.

The ROK does not provide such assistance to Cuba.

29. FA Sec. 620 (b). If assistance to the government of a country, existence of determination it is not controlled by the international Communist movement.

The Secretary has so determined in the case of the ROK.

30. FA Sec. 620 (c). If assistance to the government of a country, existence of indebtedness to a U.S. citizen for goods or services furnished or ordered where such citizen has exhausted available legal remedies or where the debt is not denied or contested by such government or the indebtedness arises under an unconditional guaranty of payment given by such government.

No such indebtedness known to exist.

31. FA Sec. 620 (d). If assistance for any productive enterprise which will compete with U.S. enterprise, existence of agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan.

No competition with U.S. enterprise will result from this project.

32. FA Sec. 620 (e)(1). If assistance to the government of a country, extent to which it (including government agencies or subdivisions) has, after January 1, 1962, taken steps to repudiate or nullify contracts or taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking appropriate steps to discharge its obligations.

No such action known to have been taken.

33. FA Sec. 620 (f); App. Sec. 109. Compliance with prohibitions against assistance to any Communist country.

The ROK provides no assistance to any communist country.

34. FA Sec. 620 (g). Compliance with prohibition against use of assistance to compensate owners for expropriated or nationalized property.

Not applicable.

35. FA Sec. 620 (h). Compliance with regulations and procedures adopted to insure against use of assistance in a manner which, contrary to the best interests of the U.S., promotes or assists the foreign aid projects or activities of the Communist-block countries.

No such projec or activity known to exist in recipient country.

36. FA Sec. 620 (i). Existence of determination that the country is engaging in or preparing for aggressive military efforts.

The President has made no determination with respect to the ROK under this Section.

37. FA Sec. 620 (k). If construction of productive enterprise where aggregate value of assistance to be furnished by U.S. will exceed $100 million, identification of statutory authority.

Not applicable.

38. FA Sec. 620 (l). Compliance with prohibition against assistance after 31 December 1966 for the government of a country which fails to institute investment guaranty program.

The requisite investment guaranty programs have been instituted.

39. FA Sec. 620 (n); App. Sec. 107(b); 117. Compliance with prohibitions against assistance to countries which traffic or permit trafficking with North Vietnam.

No information that the ROK so traffics or permits trafficking.

40. FA Sec. 620 (o). If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters, consideration which has been given to excluding the country from assistance.

No information that the ROK has so acted against any U.S. fishing vessel.

41. FA Sec. 636 (h); 612 (b). Appropriate steps that have been taken to assure that, to maximum extent possible, country is contributing local currencies to meet the cost of contractual and other services and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

The ROKG is contributing all local currency requirements of this project.

42. App. (Sec. Unnumbered) Use of funds to carry out FA Sec. 205, which pertains to IDA.

Not applicable.

43. App. Sec. 102. Compliance with requirement that payments in excess of $25,000 for architectural and engineering services on any one project be reported to Congress.

Any such fees in excess of $25,000 will be reported to Congress.

44. App. Sec. 104. Compliance with bar against funds to pay pensions, etc., for military personnel.

The Loan Agreement and Letter of Commitment procedures will preclude such payments.

45. App. Sec. 106. If country attempts to create distinctions because of their race or religion among Americans in granting personal or commercial access or other rights otherwise available to U.S. citizens generally, application which will be made in negotiations of contrary principles as expressed by Congress.

No information that the ROK creates such distinctions.

46. App. Sec. 111. Compliance existing requirements for security clearance of personnel.

The Loan Agreement and Implementation Letters will contain required provisions.

47. App. Sec. 112. Compliance with requirement for approval of contractors and contract terms for capital projects.

The Loan Agreement and Implementation Letters will provide for the required review and approval.

48. App. Sec. 114. Compliance with bar against use of funds to pay assessments, etc., of U.N. member.

The Loan Agreement and Letter of Commitment procedures will preclude such payments.

49. App. Sec. 115. Compliance with regulations on employment of U.S. and local personnel for funds obligated after 30 April 1964.

The Loan Agreement will cover this provision, if applicable.

50. App. Sec. 401. Compliance with bar against use of funds for publicity or propaganda purposes within U.S. not heretofore authorized by Congress.

The Loan Agreement and Letter of Commitment procedures will preclude such use of funds.

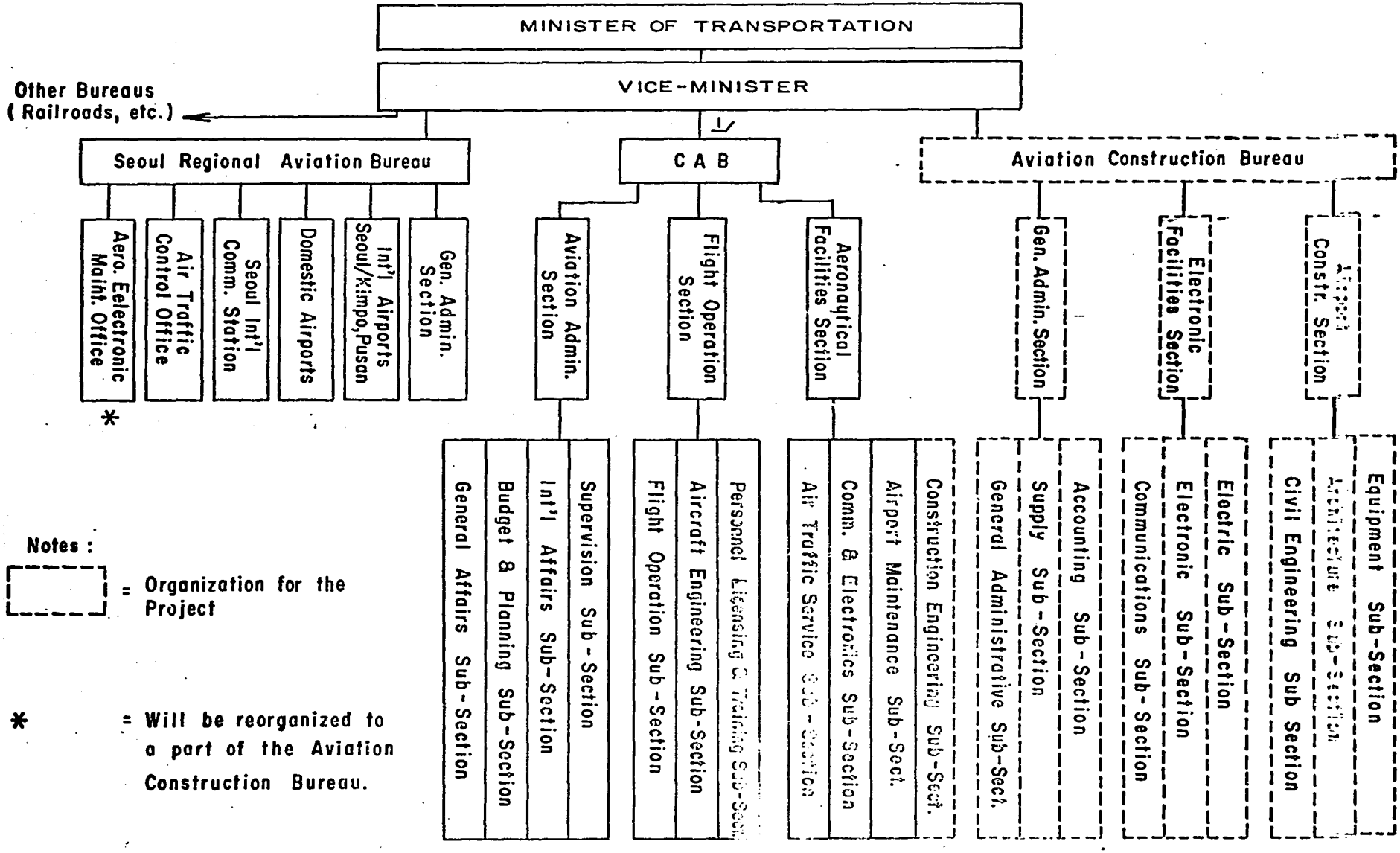
AID-DLC/P-429
ANNEX II
May 27, 1966

EXHIBITS

Exhibit No.	Title
1	ROK CAB Organization Chart and Plan for Project
2	Map of ROK Airspace Reasponsibility
3	Chart of Estimated Project Priority Scheduling
4	Estimated Project Costs
5	Trends of Worldwide Civil Air Transportation
6	Air Passenger Transportation and Prospects in Korea
7	Proposed Loan Amortization Table
8	ROK Foreign Capital Loans: Summary of Debt Service
9	Detailed Equipment List
10	Proposed Scope of Work for FAA PIO/T - PASA

ANNEX II, EXHIBIT I

ORGANIZATION PLAN FOR AID PROJECT



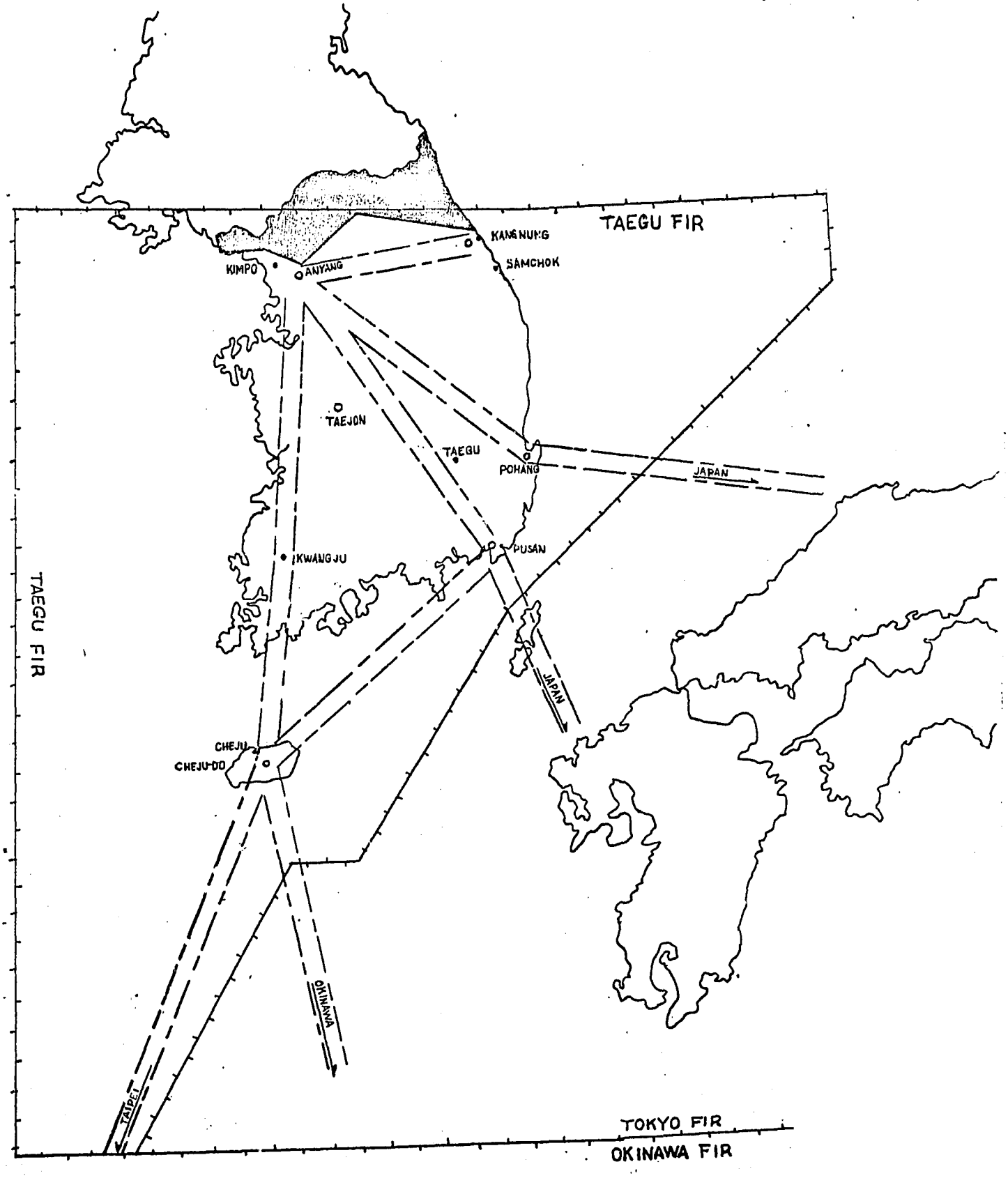
Notes :

[ ] = Organization for the Project

* = Will be reorganized to a part of the Aviation Construction Bureau.

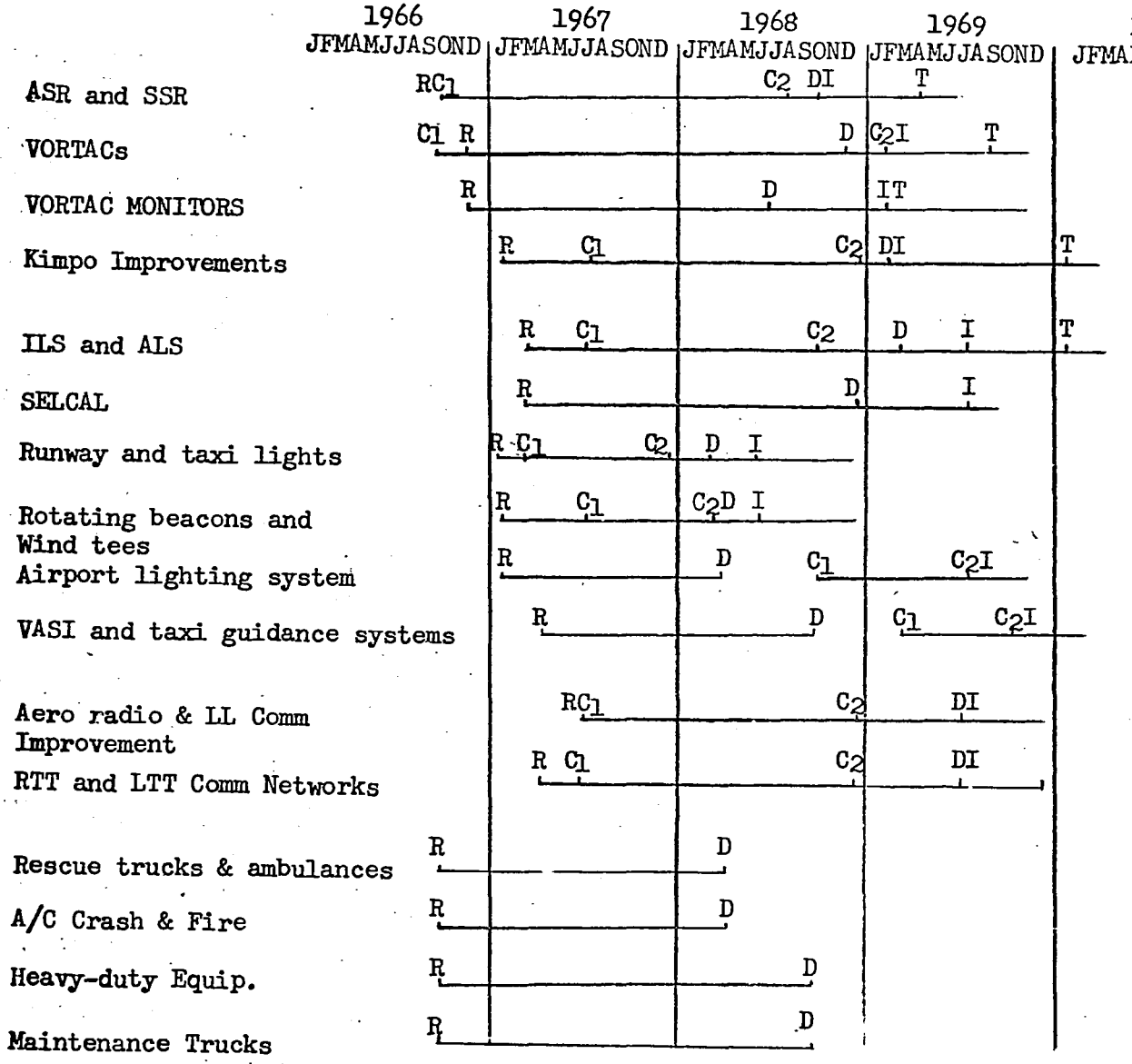
1/ = ROKG organization provides that Bureau Chiefs (for [illegible]) report direct to Vice Minister. The SRAB and ACB shown herein report to the CAB for [illegible] matters and implementation of this project.

ANNEX II, EXHIBIT 2



ESTIMATED PROJECT PRIORITY SCHEDULING

ANNEX II, EXHIBIT 3



R = Equip requisition
C_1 = Site construction begins
C_2 = Site construction complete
D = Equip delivery complete
I = Equip installation begins
T = On-job-training begins

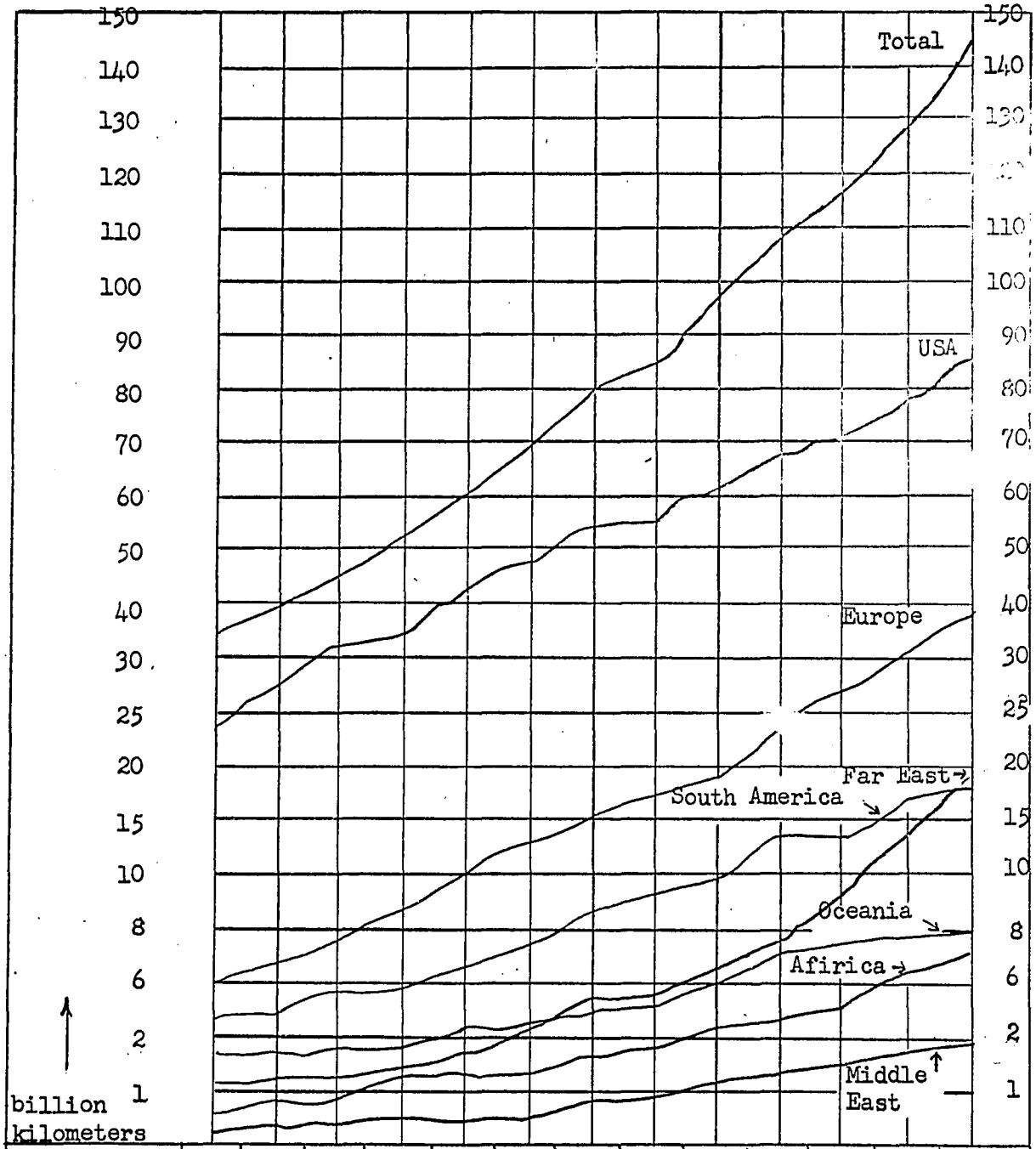
ANNEX II, EXHIBIT 4

ESTIMATED PROJECT COSTS

Project	FAA Dol. Cost (Est. Procurement Breakdown)	OSROK Dol.Cost	Project Won Cost (1,000)	Won Equiv. in Dollars	Won plus Dollars
ASR	586,575		89,217	330,433	1,167,008
SSR	250,000				
VORs	325,500		166,454	616,496	1,161,096
TACANS (AN/GRC-9)	220,000				
ILSs (Low cost)	375,000		27,294	101,089	476,089
Aero Radio & LL Comm Equip	149,375		19,502	72,230	474,685
Improve RTT & LTT	238,000				
VOR Monitor Links	15,080				
Aero LL, Comm & Power Improve.		295,400	14,515	53,759	349,159
SELCAL		9,700	600	2,222	11,022
Approach Light Sys.		290,000			
Airport Light Sys.		30,000			
Runway & Taxi Lights		51,600	43,970	162,852	657,952
Rotating Beacons & Wind Tees		42,000			
VASI & Taxi Lights		81,500			
Rescue, Fire & Ambulance Veh's		114,600	32,658	120,956	235,556
A/C Crash & Fire Trucks		204,100	xx	xx	204,100
Heavy-duty Equip.		139,400	10,575	39,167	178,567
Electronic Facility Maint. Trucks		29,100	xx	xx	29,100
Sub Total	2,159,530	1,287,400	404,785	1,499,204	4,946,134
FAA Procurement (7½% Admin)	161,965				161,965
CAB Tech. Training	80,000				80,000
CAB Eng. Coord.	6,000				6,000
FAA Eng. Services	300,000				300,000
Sub Total	2,707,495	1,287,400			5,494,099
	3,994.895				
Contingency	205,105		20,239	74,959	280,064
Grand Total	$4,200,000 (U.S. Dollars)		W425,024 (Korean Won)	1,574,163	5,774,163

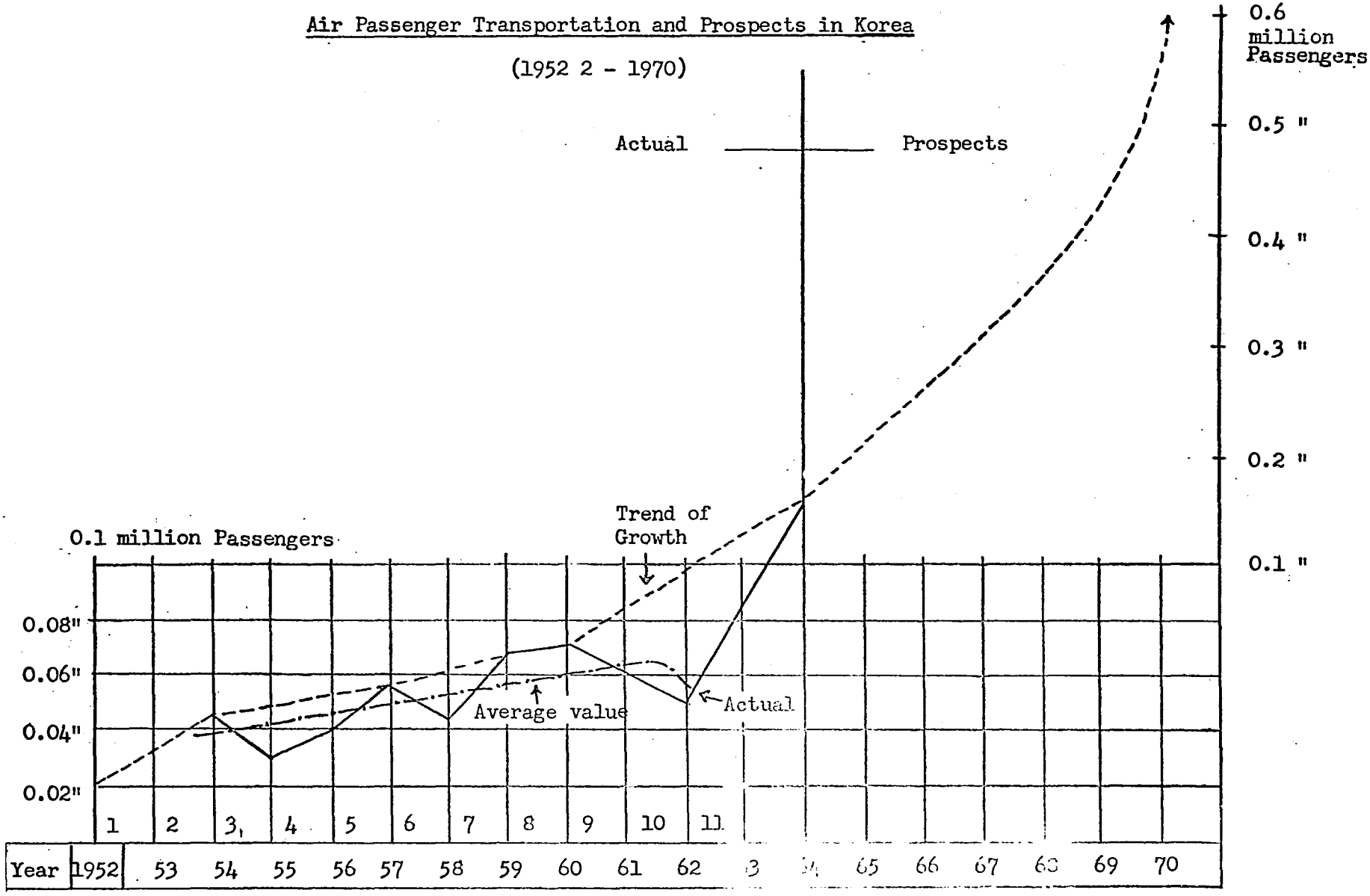
Exchange rate of W270:$1.

Trends of Worldwide Civil Air Transportation



Year	1951	52	53	54	55	56	57	58	59	60	61	62	63
Treaty nations	57	58	61	65	66	70	72	73	74	83	90	98	101

ANNEX II, EXHIBIT 6



PROJECTED A.I.D. LOAN REPAYMENT SCHEDULE
(In U.S. Dollars)

Loan Amount: $3,900,000.00

Term: 40 years with 10 year grace period

Interest: 1% per annum during 10 year grace and 2½% thereafter

Year	Total Payment	Interest Payment	Principal Repayment	Outstanding Loan
1967	$10,054.30	$10,054,30		$2,020,863.00
	16,651,97	16,651,97		3,330,394.00
1968	18,991.80	18,991.80		3,798,360.00
	19,163.30	19,163.30		3,832,660.00
1969	19,420.20	19,420.20		3,884,040.00
	19,473.20	19,473.20		3,894,[illegible]
1970	19,500.00	19,500.00		3,900,000.00
	19,500.00	19,500.00		3,900,000.00
1971	19,500.00	19,500.00		3,900,000.00
	19,500.00	19,500.00		3,900,000.00
1972	19,500.00	19,500.00		3,900,000.00
	19,500.00	19,500.00		3,900,000.00
1973	19,500.00	19,500.00		3,900,000.00
	19,500.00	19,500.00		3,900,000.00
1974	19,500.00	19,500.00		3,900,000.00
	19,500.00	19,500.00		3,900,000.00
1975	19,500.00	19,500.00		3,900,000.00
	19,500.00	19,500.00		3,900,000.00
1976	19,500.00	19,500.00		3,900,000.00
	19,500.00	19,500.00		3,900,000.00
1977	91,757.58	48,750.00	$43,007.58	3,856,992.42
	91,757.58	48,212.41	43,545.17	3,813,447.25

NOTE: The amortization schedule for the loan has been calculated to reflect the proposed actual repayment schedule, with the FAA engineering costs provided by TC funds and the US$300,000 included in the loan for that purpose deobligated.

Year	Total Payment	Interest Payment	Principal Repayment	Outstanding Loan
1978	$91,757.58	$47,668.09	$44,089.49	$3,769,357.76
	91,757.58	47,116.97	44,640.61	3,724,717.15
1979	91,757.58	46,558.96	45,198.62	3,679,518.53
	91,757.58	45,993.98	45,763.60	3,633,754.93
1980	91,757.58	45,421.94	46,335.64	3,587,419.29
	91,757.58	44,780.24	46,977.34	3,540,441.95
1981	91,757.58	44,255.52	47,502.06	3,492,939.[illegible]
	91,757.58	43,661.75	48,095.83	3,444,844.[illegible]
1982	91,757.58	43,060.55	48,697.03	3,396,147.03
	91,757.58	42,451.84	49,305.74	3,346,841.29
1983	91,757.58	41,835.64	49,921.94	3,296,919.35
	91,757.58	41,211.49	50,546.09	3,246,373.26
1984	91,757.58	40,579.67	51,177.91	3,195,195.[illegible]
	91,757.58	39,939.94	51,817.64	3,143,377.71
1985	91,757.58	39,292.22	52,465.36	[illegible]
	91,757.58	38,636.40	53,121.18	3,037,791.17
1986	91,757.58	37,972.39	53,785.19	2,984,005.98
	91,757.58	37,300.07	54,457.51	2,929.548.47
1987	91,757.58	36,619.36	55,138.22	2,874,410.25
	91,757.58	35,930.13	55,827.45	2,818,582.80
1988	91,757.58	35,232.29	56,525.29	2,762,057.51
	91,757.58	34,525.72	57,231.86	2,704,825.65
1989	91,757.58	33,810.32	57,947.26	2,646,878.39
	91,757.58	33,085.98	58,671.60	2,588,206.79
1990	91,757.58	32,352.58	59,405.00	2,528,801.79
	91,757.58	31,610.02	60,147.56	2,468,654.23
1991	91,757.58	30,858.18	60,899.40	2,407,754.83
	91,757.58	30,096.94	61,660.64	2,346,094.19
1992	91,757.58	29,326.18	62,431.40	2,283,662.79
	91,757.58	28,545.78	63,211.80	2,220,450.99
1993	91,757.58	27,755.64	64,001.94	2,156;449.05
	91,757.58	26,955.61	64,801.97	2,091.647.08
1994	91,757.58	26,145.59	65,611.99	2,026,035.09
	91,757.58	25,325.44	66,432.14	1,959,602.95

Year	Total Payment	Interest Payment	Principal Repayment	Outstanding + Loan
1995	$91,757.58	$24,495.04	$67,262.54	$1,892,340.41
	91,757.58	23,654.26	68,103.32	1,824,237.09
1996	91,757.58	22,802.96	68,954.62	1,755,282.47
	91,757.58	21,941.03	69,816.55	1,685,465.92
1997	91,757.58	21,068.32	70,689.26	1,614,776.66
	91,757.58	20,184.71	71,572.87	1,543,203.79
1998	91,757.58	19,290.05	72,467.53	1,470,736.26
	91,757.58	18,384.20	73,373.38	1,397,362.88
1999	91,757.58	17,467.04	74,290.54	1,323,072.34
	91,757.58	16,538.40	75,219.18	1,247,853.16
2000	91,757.58	15,598.16	76,159.42	1,171,693.74
	91,757.58	14,646.17	77,111.41	1,094,582.33
2001	91,757.58	13,682.28	78,075.30	1,016,507.03
	91,757.58	12,706.34	79,051.24	937,455.79
2002	91,757.58	11,718.20	80,039.38	857,416.41
	91,757.58	10,717.71	81,039.87	776,376.54
2003	91,757.58	9,704.71	82,052.87	694,323.67
	91,757.58	8,679.05	83,078.53	611,245.14
2004	91,757.58	7,640.56	84,117.02	527,128.12
	91,757.58	6,589.10	85,168.48	441,959.64
2005	91,757.58	5,524.50	86,233.08	355,726.56
	91,757.58	4,446.58	87,311.00	268,415.56
2006	91,757.58	3,355.19	88,402.39	180,013.17
	91,757.58	2,250.16	89,507.42	90,505.75
2007	91,637.07	1,131.32	90,505.75	
TOTAL	$5,973,846.64	$2,073,846.64	$3,900,000.00	

ROK FOREIGN CAPITAL LOANS: SUMMARY OF DEBT SERVICE
(As of February 15, 1966)

In Millions of Dollars

	Loan Amount	Debt Service - (Interest shown in parenthesis) 1964	1965	1966	1967	1968	1969	1970
Approved Loans[a]	472.7	8.0	8.2(2.1)	15.7(5.8)	27.8(13.2)	29.9(10.5)	33.0(10.0)	40.8(14.1)
Government[b]	238.7	2.6	1.6(1.0)	2.4(1.5)	3.4 (2.2)	4.3 (2.9)	4.5 (2.9)	4.5 (3.0)
Commercial[c]	234.0	5.4	6.6(1.1)	13.3(4.3)	24.4(11.0)	25.6 (7.6)	28.5 (7.1)	36.3(11.1)
Loans Under Review[d]	389.5	-	0.1	0.2	1.4 (0.5)	14.3 (5.7)	28.8(11.2)	32.3(10.9)
Government	192.1	-	-	-	0.1 (0.1)	0.1 (0.1)	2.5 (2.5)	3.0 (3.0)
Commercial[c]	197.4	-	0.1	0.2	1.3 (0.4)	14.2 (5.6)	26.3 (8.7)	29.3 (7.9)
GRAND TOTAL	862.2	8.0	8.3(2.1)	15.9(5.8)	29.2(13.7)	44.2(16.2)	61.8(21.2)	73.1(25.0)

Source: Economic Planning Board, Republic of Korea.

a/: Includes loans for which loan agreements have been signed or for which letters of guarantee have been issued or are pending.

b/: Includes four DLF loans totalling $9.9 million which are repayable in Won currency. The debt service on these four loans is included in terms of constant dollar equivalents.

c/: Includes both commercial loans for which ROK Government repayment guarantees are required and non-guarantee commercial loans.

d/: Debt service reflects prospective amortization for individual loans as estimated by the Economic Planning Board.

ANNEX II
EXHIBIT 9

LEGEND:
- VOR - Very High Frequency Omni-directional Radio Range
- TACAN - Tactical Air Navigation Aid.
- VORTAC - Combined VOR-TACAN.
- ILS - Instrument Landing System.
- ASR - Airport Surveillance Radar.
- SSR - Secondary Surveillance Radar.
- SELCAL - Selective Calling System.
- VASI - Visual Approach Slope Indicating System
- NDB - Low Frequency Non-directional Radio Beacon.
- GCA - Ground Controlled Approach.

LOCATION	PRESENTLY INSTALLED	PROPOSED UNDER LOAN	ICAO-FAA-ROKG RECOMMENDATIONS&STANDARDS
Kimpo (Seoul) Int'l Airport	VOR ILS NDB GCA* TACAN*	ASR SSR SELCAL VASI	ASR VORTAC SSR SELCAL ILS NDB VASI
Pusan Int'l Airport	VOR NDB	ILS VASI TACAN	VORTAC VASI ILS NDB
Che ju-do Airport	NDB	VORTAC ILS	VORTAC NDB ILS
Kangnung Airport	NDB	VORTAC ILS Rnwy Lgts.	VORTAC NDB ILS Rnwy Lgts.
Pohang Airport	NDB	VORTAC	VORTAC NDB
Taejon Airport	NDB TACAN*	VORTAC	VORTAC NDB NDB
All Domestic Airports		Modernization & Improvement of Aeronautical Telecommunications,	Modernization & Improvements of Aeronautical Telecommunications
All Domestic Airports		Fire-fighting Rescue & Maintenance Equipment and Vehicles..	Fire-fighting, Rescue & Maintenance Equipment and Vehicles

*Military

ANNEX II
EXHIBIT 10

Scope of Technical Services--Technical services will be provided to accomplish preliminary engineering, determine technical requirements, accomplish procurement, advise and assist the host government in formulating and implementing a system of installation, operation and maintenance of the equipment and systems provided. Equipment will include the following and will be procured under a PIO/C.

1 each	Airport Surveillance Radar System.
1 each	Secondary Surveillance Radar System.
4 each	Very High Frequency Omni-directional Radio Ranges.
4 each	Tactical Air Navigation Aids, to be co-located with VORs.
3 each	Instrument Landing Systems.
2 each	Visual Approach Slope Indicating Systems.
1 each	Selective Calling System.
1 each	Runway and Taxiway Lighting System.
	Such other supplemental and support equipment including modernization and improvement of aeronautical telecommunications, fire-fighting, rescue and airport maintenance equipment and vehicles, and rotating light beacons and wind tees as required to accomplish the total project.

A. The FAA will perform the following services in Korea for the ROKG:

1. Conduct preliminary engineering site surveys for facilities to be installed at the locations involved and as listed in the Loan Agreement. Should land acquisition or technical problems be of such a magnitude that excessive installation costs are involved, alternate sites suitable to the Korean Civil Aviation Bureau (CAB) will be surveyed and a conclusion made for installation at the alternate site.

2. Assist the Government of Korea (ROKG) in the preparation of engineering drawings and overall plans for installation of the facilities.

3. To assist the ROKG in the conduct of flight inspection site tests, using CAB flight check aircraft where required, assist the supervising of the installation of temporary portable systems; after analyzing the test results, recommending construction of permanent systems or accomplishment of changes necessary to achieve a satisfactory facility.

4. Certify to the ROKG and to USAID that the site selection, testing, engineering, construction, and commisioning is proceeding in accordance with the project implementation schedule.

5. Provide to the ROKG supervisory assistance in supervision of the general accomplishment of all civil construction involved in the project including buildings, cable and duct lines, power lines, antenna structures, approach light towers, and other ancillary equipment such as standby power generators and switchgear.

6. Coordinate with the Washington Office of the U.S. Federal Aviation Agency concerning procurement schedules to compensate for changes in delivery, to assure that the construction in Korea is in accord with the planned arrival of the equipment at the site.

7. Coordinate engineering data with the Washington Office of the Federal Aviation Agency to incorporate necessary changes in building or other construction details required by advances in the state of the art or changes in standards or tolerances established internationally for civil avaiation.

8. Render advisory services and training to the Civil Aviation Bureau of the ROKG in those areas necessary to the successful completion of the project, including air traffic control, air-ground communications, radar operations, technician training, equipment maintenance installation, and operations.

9. Assume responsibility for design and factory inspection of the U.S. manufactured equipment including installation in Korea; provide technical direction and assistance for all equipment installation, and approve prior to any subsequent disbursements under the loan all work accomplished on the project.

10. Prepare and submit to USAID within ten (10) working days following the due date quarterly progress reports and based on review of project implementation and shipping reports as appropriate for the duration of the project as required by A.I.D. and prepare and submit to USAID a terminal report upon completion of the project within thirty (30) days. All reports are to be submitted in the English language in five (5) copies.

B. The FAA will perform the following services outside of Korea for the ROKG:

1. Upon receipt of the necessary authorization to utilize project loan funds, arrange for the procurement of the necessary equipment through normal U.S. FAA channels, including such sub-contracts as required for manufacture, rehabilitation of available equipment to new condition, or necessary technical services of a sub-contractor for installation in Korea of portions of the system.

2. Maintain an [illegible] record of all costs, disbursements, and [illegible] thereof.

3. Maintain current lists of commodities in process of manufacture, procurement, shipment, and receipt in Korea, in sufficient detail to enable the adequate identification of the status of commodities

2. Maintain budgetary records of all costs, disbursements, and other expenditures.

3. Maintain current lists of commodities in process of manufacture, procurement, shipment, and receipt in Korea, in sufficient detail to enable the adequate identification of the status of completion of the various facilities.

4. Provide necessary information to USAID and the FAA project representative in Korea in sufficient detail that reports or certifications will accurately reflect the procurement, delivery, or cost accounting status of loan funds.

5. Arrange for personal services of resident FAA engineers in Korea and such additional assistance as may be required, either on the basis of regular tours-of-duty or short-term assignments as are needed and are mutually agreed upon by the ROKG, the FAA, and A.I.D.

6. The FAA will undertake such other related missions or services as may be determined to be appropriate to achieve the purpose and intent of the project provided that any change in the scope of the work is approved by the ROKG, the FAA, and USAID.

AID-DLC/P-429
ANNEX III
May 27, 1966

IMPLEMENTATION PLAN

It is intended that implementation of the proposed project will follow A.I.D.'s customary procedures for Development Loans. Following is the proposed plan for processing the numerous actions required for loan authorization, execution, and implementation, together with information as to whether AID/W or USOM is to have the specific responsibility:

	Responsibility
Preparation of IRR	USOM
Approval of IRR	AID/W
Preparation of Capital Assistance Paper	USOM
Draft Press Release	AID/W
Loan Authorization	AID/W
Press Release	AID/W & USOM
Letter of Advice	USOM
Draft Loan Agreement	USOM
Draft Implementation Letter	USOM
Negotiate and Sign Loan Agreement	USOM
Issue Implementation Letter No. 1	USOM
Approval of Engineer	USOM
Approval of Conditions Precedent	USOM
Approval of L/Com for Procurement	AID/W
Estimated Project Completion	March 1970

USOM proposes that the Loan Agreement and the Implementation Letter be drafted by USOM, and that USOM negotiate and execute the Loan Agreement and issue the Implementation Letter without prior clearance by AID/W.

USOM also proposes that it be delegated authority to do the following without prior AID/W approval:

Determine when conditions precedent have been met.

Extend terminal dates when required.

Approve contracts required for the project.

Approve plans and specifications.

Approve procurement transactions where deemed necessary.

All requests for waivers of conditions precedent or substantial modifications of the Loan Agreement are to be recommended by USOM, but approved by AID/W.

It is recommended that the terminal date for fulfillment of conditions precedent be three months from the date of execution of the Loan Agreement. Also, that the terminal date for requesting commitment documents for disbursements be three years from the date of execution of the Loan Agreement. It is also recommended that all monitoring responsibilities for this loan be assigned to USOM/Korea.

Special Condition Precedent

The detailed plans required under Section VI, which will be amplified in the first Letter of Implementation, will be prepared by the CAB in coordination with the FAA/CAAG, approved by MOT, and approved and forwarded to USOM by the EPB. Generally speaking, these plans will be an amalgamation with certain additions, of the plans set forth in various places in the Loan Application as amended, and as recommended in this paper.

FAA Procurement under the Loan

Final specifications for the radio aids to air navigation system to be purchased through the FAA/W will be standard FAA specifications modified and amended as necessary by the CAB and FAA/CAAG in accordance with site peculiarities. These amended specifications as well as detailed lists of site required hardware will be the basis of the purchase requisitions prepared by the FAA/CAAG and forwarded to FAA/W for their procurement action. FAA/W procurement action will include factory inspection of all equipment and tests of all systems prior to shipment.

Role of FAA/CAAG

All site surveys and plans preparation will be completed by Korean engineers of the CAB or contracted by the CAB under the supervision of the FAA/CAAG. The installation of project machinery and hardware will be done by CAB technicians under the same supervision. The FAA/CAAG will approve plans and specifications for all installation work performed by systems contractor engineering personnel, and will monitor the control engineering actions of the CAB staff in all site preparations and construction performed by local constractors. The FAA/CAAG will supervise and assist the CAB staff in the installation and commissioning of the systems provided under the loan.

ROKG Procurement (OSROK)

Final plans and specifications for the materials and machinery to be purchased through OSROK will be prepared by the CAB with the advice and assistance of the FAA/CAAG. OSROK may then solicit bids from U.S. firms in accordance with their normal procurement procedures utilizing the documents furnished by the CAB if mutually agreeable. It is contemplated that bid review and analysis will be conducted by OSROK, CAB, and the FAA/CAAG. USOM will reserve the right to approve procurement contract awards.

AID-DLC/P-429/A Draft
ANNEX IV

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

CAPITAL ASSISTANCE LOAN AUTHORIZATION

Provided from Development Loan Funds

(Korea: Air Navigation Development)

Pursuant to the authority vested in the Adminstrator of the Agency for International Development (hereinafter called "A.I.D.") by the Foreign Assistance Act of 1961, as amended, and the Delegation of Authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part I. Chapter 2, Title I, of the Development Loan Fund, to the Republic of Korea of four million, two hundred thousand United States Dollars ($4,200,000) to assist in financing the foreign exchange costs of establishing modern civil air navigation aid faciltiies and related safety equipment in the Republic of Korea, and U.S. FAA engineering services in connection therewith if such services are not otherwise funded. The loan is to be subject to the following terms and conditions:

1. Interest and Terms of Repayment

The interest on this loan shall be one percent (1%) per annum for the first ten (10) years of the loan and two and one-half percent (2½%) per annum for the remainder of the term of the loan. The loan shall be repaid within forty (40) years from the date of the first disbursement under the loan, including a grace period of ten (10) years, on the basis of level semi-annual installments covering principal and interest during the reapyment period.

2. Currency of Repayment

Provision shall be made for repayment of the loan and payment of the interest in United States dollars.

3. Other Terms and Conditions

(a) Equipment, materials and services financed under this loan shall have their source and origin in the United States.

(b) As a condition precedent to disbursements under the loan, the Borrower will provide detailed plans, in form and content satisfactory to A.I.D., for the installation, operation and maintenance of the project. Such plans will cover: recruitment and training of personnel; source and timing of the required local currency; arrangements for engineering, construction and procurement; timely availability of adequate communications facilties; and plans for collecting landing and other fees from non-military users of airports in the Republic of Korea.

(c) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Rutherford M. Poats
Assistant Administrator for Far East

Date